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# High Fidelity

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100 N. WESTERN AVE.  
CHICAGO 80, ILL.

Roy Lindstrom



“FIFTY BEST DESIGNS”





VOICE & VISION — CHICAGO

## INTRODUCTION TO LISTENING PLEASURE

**F**IFTY BEST DESIGNS has been planned for those who are discovering that conventional phonographs and table radios have been outmoded in appearance and far surpassed in performance by the new high-fidelity installations.

This brochure has been planned to answer three questions that more and more people are asking today: How do you start finding out about high fidelity? What do hi-fi installations look like? How should you go about selecting equipment that will provide the greatest enjoyment at the lowest cost?

And if this information prompts you to seek still more, the source most frequently referred to is **HIGH FIDELITY**, the magazine published for those who enjoy fine music in their homes.





## HI-HO FIDELITY

by Ed Wallace

THREE months ago I met a man in a phonograph record shop who spoke a strange argle-bargle of sounds and whose eyes burned with a fierce crusading light.

It was my first experience with a hi-fi nut.

We were not complete strangers, since both of us work in the same office, but it is a large office and we had never exchanged words before. It was during the lunch hour and both of us were prowling the record shelves.

I pulled out a disk of *Gaité Parisienne*, began reading the back of the record sleeve, and almost instantly the man was at my side, smiling as people do when they know each other by sight, but have never met.

"There is another recording of *Gaité* that is much better," the man said pleasantly. He whipped out the opposing label and handed it to me.

"More bass," he said. And as I recall now, he gave that word bass an ominous sound. I wasn't certain whether he considered more bass good or bad, nor at that time had my ears been pierced by "better highs", a term he used next in our conversation.

Glancing affectionately at the record of his choice, the man then asked me what I had to play it on. A more senseless question I had never heard. I glanced beyond the inquisitor, wondering suddenly if I wanted this chance meeting to flower into friendship or not.

"I plan to play it on a phonograph," I said.

I will never forget the expression of superiority, mingled

with fatherly interest which settled over this young man's face. I had encountered a man with a high fidelity music reproducing system. In less awesome terms, he owned a phonograph made up of individual parts and strung out all over the house. That, I learned later.

We talked for a few minutes in the record store. At least, *he* talked, and I became so confused that I delayed my decision on *Gaité Parisienne* until I could bring myself up to date. My new friend seemed more than willing to undertake my education in high fidelity and as we walked back to the office he poured out the first chapters of a story which I was to follow with considerable interest for a week.

We are both employed in the editorial department of a New York newspaper and between editions he would come to my desk and sit, face in hand, muttering statements about Bogen this and Scott that and McIntosh the other. He spoke of amps, dampers and pre-amps until at the end of another week I wondered if, out of kindness, I shouldn't make the first move to have him committed to Bellevue for observation.

"Look," I said in some desperation one day, "I got a dandy little phonograph that sits on a table and makes the grandest music you ever heard. I've never worried over it a minute."

"What kind of speaker does it have?" the man asked.

"How should I know what kind of speaker it has?" I demanded. "Inside, somewhere, I'm sure there must be

DRAWINGS BY ROY LINDSTROM



a speaker. At least, the thing speaks!"

That noon he suggested we go to lunch together. We went, but we didn't eat. He, like a Judas goat, led me to a radio and television store where a neon-lighted arrow pointed up a stairway to a door identified as *Sound Studio*. We went in and the clerks greeted my friend in the warmest and most cordial terms.

"I come in here every day," he explained in answer to my surprise.

He spoke to a clerk while glancing casually at me, "This fellow wants to hear the Craftsman through an Electro-Voice Royal II and use the Pickering arm. Give him a switchover to the 604-B."

I had realized that my friend was an audio namedropper, but here he was outdoing himself. I hadn't the slightest idea what was going on, nor can I recall now that I was greatly impressed. A salesman began playing de Falla's *Three Cornered Hat* and my first impression was that here is music shot from guns. Notes began to pelt me from all directions, like puffed wheat. I looked over the amplifiers of various makes, having been assured that this was the heart of a high fidelity system, and I must say there is little excitement in this. An amplifier looks like a radio which didn't quite come off. When turned on, not connected to other units of a system, the amplifier is unable to utter a sound. I left the Sound Studio with a feeling of relief.

It was not until that evening when I played my dandy little phonograph at home that I realized it wasn't all it should be. A few days later I visited the Sound Studio of my own accord.

**W**HAT FOLLOWS is the case history of a convert to high fidelity. It is a review of the mental processes, aural awakening, decisions and indecisions, and the exciting journey from knowing nothing to knowing everything about high fidelity reproduction of recorded music in the home. Yes, everything. I have now paid my money, the living room is electronic beyond all belief, and I own more than a hundred long playing records. I am one of the boys, and I am entitled to speak. I have yet to find a hi-fi nut who doesn't radiate authority and advice and I propose to be no exception.

Among my new friends I number a gent who has seventeen loudspeakers in his home and, while I laugh at him openly, secretly I would like to have eighteen. Here at this point, for future clarity, let's take a quick look at me.

For many years I made a fascinating hobby of disliking music. I was active in the Society For the Prevention of Classical Music, and nobody could leap to the radio more swiftly than I to shut off any tremulous fragment of Puccini or Verdi which tried to invade the home. I could be alerted, cross the room and dial out a tenor before he could work his way from *vesti* to *la giubba*. I was so lightning fast at turning off operatic music that it was only because of a badly sprained ankle in 1946 that I discovered *Céleste* was followed closely by *Aïda*. I worked at it. I had a reputation to maintain.

My surprising conversion came about in rather indirect fashion, a matter of being ambushed, then conked by Chabrier. One of my children had been taking ballet lessons a couple of years and one night during the ballet season I attended my first performance, merely to prove to myself what I felt sure of already, that I was tossing the money away. As for the ballet itself, well, that seemed a remarkable dodge for making a living, but it was the music which slipped up behind and disarmed me. I liked it, but that didn't disturb me too much. Actually, I've been perfectly willing all along to like music, providing it wasn't classical music. For years I have been a devoted listener to the works of Roy Acuff, but nothing else. So far as I know, mine was the only phonograph ever purchased and maintained for the sole purpose of enjoying Mr. Acuff and the Smoky Mountain Boys.

At the ballet I discovered that I liked unfamiliar music, and a little research in a long playing record catalogue revealed that what I had begun to like was classified as long-hair. I was rather shocked at this, but decided to venture in cautiously, fool around with *The Swan Lake*, *Invitation to the Dance*, Bizet's *Symphony in C* and, after a decent interval, *Pétrouchka*. I took it easy at first, glancing back occasionally at Acuff, figuring I could throw it off at any time, like a kid beginning cigarettes. It was at that point when I met the hi-fi man lurking in the record store.

After I decided to buy a music system, there remained the questions of what to buy, how much to pay, and when to pay it. Being depressingly Scottish in both lineage and outlook, I wanted to spend less than four hundred dollars, considerably less, but at the same time I was impatient to get the music in the house.

There are two ways to select a system, neither of them totally satisfactory, since five components are the minimum required for a radio-phonograph and they may be made by five different manufacturers. Most makers of amplifiers do not make loudspeakers, and the makers of automatic record changers seem satisfied in their specialized field. The "insides" of a commercial and a custom phonograph are the same: turntable, cartridge, stylus, pick-up arm, amplifier and speaker. It is quality alone which allows one to be sold for less than twenty dollars while the other may cost as much as two thousand dollars.

In buying a system, a person may accept whatever components a salesman suggests, or he can visit the stores, listen to many combinations of amplifiers and speakers and then make up his own mind. Before parting with my money, I decided I would listen for at least a month. In New York and other large cities, a prospective customer can hear practically all the equipment available to the public, and I made the most of this.

Within four weeks I made twenty visits to five stores and listened for at least an hour at each visit. At the end of the first week I discovered happily that my ears were getting educated. Salesmen had begun suspecting that I was going to be a hard man to please. A few of them, not too many, began trying to close in too fast. At one sound studio, where I had repeatedly listened to two twelve-inch loudspeakers in the same price range, I decided one



day that one was superior. Two days later I rechecked the speakers, played through the same amplifier and felt beyond question that I had been wrong, and that the second speaker was the one most pleasing to me. On that occasion a clerk (I cannot call him a salesman) seemed to feel that he was losing ground toward the ultimate sale and grew churlish, demanding to know why I didn't let well enough alone and stop changing my mind. I eventually bought the second speaker, but not from him. At the end of three weeks I began to feel that I knew my way around. I had decided to upgrade the ante to an even four hundred dollars, having discovered that, to my ears, an amplifier costing a hundred dollars sounded more than twice as good as one costing fifty. To my own satisfaction I had settled the classic question among hi-fi fans, that the amplifier is the most important unit of a system and that the monetary splurge should be made there.

Among people going into high fidelity there is nothing to buy more baffling than the baffle. A loudspeaker, to the uninitiated, looks like nothing so much as a hunk of junk and to make it acceptable socially and musically it requires a cabinet or baffle. At an early moment in my research I discovered corner cabinets. As the term implies, these sit in corners, thus minimizing sound-bounce from opposite walls. Some also are made according to what is called a folded-horn pattern. In these, the walls themselves form part of the "horn", helping to expand the bass tones of the speaker. One can spend more than seven hundred dollars for one of these. Fortunately, however, one needn't. I found one to fit my finances, but what I almost didn't find was a corner to put it in. For the first time I noticed that the apartment we have occupied for years has but one legitimate corner, and that is in the children's bedroom. Of the sixteen other corners in the apartment, all are broken up by doors, windows, radiators, offsets and obtuse angles, the cunning devices employed in modern architecture to crowd more usable space into limited dimensions.

When I mentioned this to a salesman he told me that it wasn't unusual for a man to buy a corner cabinet for his loudspeaker, only to call back desperately that he had no corner. Fortunately, I found a small right-angled corner in the living room and by closing doors on either side there is enough wall space to reflect and amplify the bass tones which exhaust through the vented back of the cabinet.

At the end of my four weeks and twenty visits I had put together, mentally, three different music systems. I had discovered that it is the accepted thing among hi-fi experts to work out at least three categories of equipment, in three distinct price brackets, and I was determined to be no exception. I was now moving in the hi-fi set.

For about a hundred dollars I could buy equipment which sounded good, but thirty days experience had

shown me that it would not satisfy me very long. For an outlay of seven hundred and fifty dollars I felt that a person (with more money than I) could buy the component for a system which could hardly be improved upon at any point. There are grounds for argument here, and I have heard them all, but I do not budge more than an extra fifty dollars to assemble the ultimate in home music reproduction, exclusive of cabinetry to house the amplifier and record changing equipment.

For the high fidelity system which considerably strained my economy, but has repaid handsomely in musical pleasure and education, I paid slightly less than four hundred dollars. Interpreted in dollars, and beginning with the system where the appreciation begins, the music comes from a sixty-five dollar loudspeaker enclosed in a fifty-eight dollar corner cabinet. For slightly less than seventy-five dollars I got an automatic record player with diamond stylus for long playing records, and a sapphire stylus for the few 78-rpm records I will play. The amplifier cost a hundred dollars, and the tone control panel required to operate this amplifier cost another hundred.

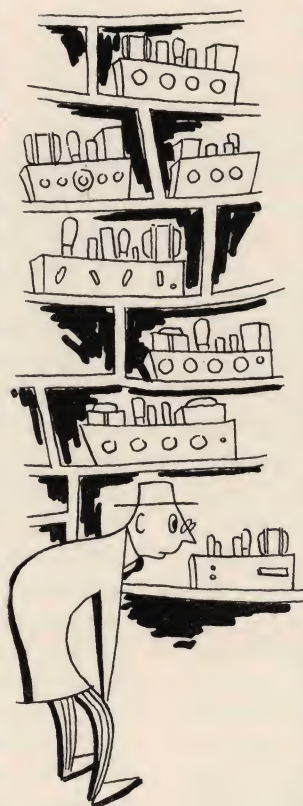
That comes to a nice round four hundred dollars, but it is necessary here to confess that I opened the wallet, somewhat reluctantly, one more time before I was satisfied.

After I had used this system two months I began to notice that the first full rapture of reality was missing from the music. The set hadn't changed, but I had. The music was still good, but I had a vague, disturbing feeling that it should be better. I added a tweeter and a dividing network to the speaker. A tweeter is a small speaker which brings out the high notes, leaving all other sounds to the large speaker. The network is a small unit, also mounted inside the cabinet, which divides the high treble from the electronic stream being sent in by the amplifier and sends the "highs" to the tweeter.

This additional equipment cost fifty dollars, but it brought new, clean sparkle to the music. With this present system — and believe me, I want nothing better — I can make the folks upstairs think that Toscanini and his crew have moved in below, or I can play symphonies at midnight with pleasure and satisfaction and the music will not be heard in an adjoining bedroom.

All in all this assembled phonograph cost me exactly a hundred dollars more than the three-fifty top I at first placed on the system, but quality in high fidelity, as in a suit of clothes or a box of fine cigars, is in the extra few dollars you finally manage to spend.

Among the considerable joys of bringing a superb music system into the home are also psychological reactions to sound vibrations which probably are as old as the human race. The feminine ear, as has long been known, does not respond with favor to shrill sounds. The day I announced with quiet authority that I intended to add a tweeter to the system to bring up the "highs", this





was greeted with all the enthusiasm I could have expected if I had revealed plans to adopt a twenty-four-year-old hat check girl. The whole idea would have been quashed right there if it had not been for inspiration.

"But the two-way speaker system will have a switch for actually cutting *down* the highs, can slice them out altogether if we want to," I explained. This seemed to carry a certain appeal and the single speaker was built up to a two-way system of speakers in the same corner cabinet. Before that there had been occasional complaints that some of the music was too shrill, but since the modification was made there have been no complaints. I cannot explain why, except that now the high tones are true and undistorted, and possibly that the feminine ear demands not fewer highs, but better ones.

ALONG WITH the means to reproduce the treasures of classical music, there has come a sudden flowering of my musical tastes, a source of interest to long-haired friends, particularly the two well-known music critics on the newspaper where I work. In years past they had occasionally offered me tickets to operas and concerts, but as a moving spirit of the Society For the Suppression of Symphonic Music, I had repaid their kind overtures with sneers and opprobrium.

In fact, on my latest and forty-sixth birthday I could have said with considerable pride that I had never heard an opera, seen a ballet, nor attended a symphonic concert; and where composers were concerned I had somehow remained utterly unaware that there was any discernible difference between the works of Mozart and those of Stravinsky. But since that memorable evening when my dislike of classical music was disrobed by the ballet, and my subsequent purchase of hi-fi equipment, I have heard thirty-eight complete operas, and some of them several times. Most of these have been long playing record albums, but at least a dozen operas were both seen and heard at the Metropolitan Opera House, a place I had not previously troubled myself to visit in thirteen years in New York. On my own records, or those played over FM radio stations, I have heard symphonies, concertos and chamber works by the hundreds. I have been in my seat, hands respectfully joined, at three concerts conducted by Toscanini and many concerts by many others.

I have listened to a perfect profusion of great music, available day and night at the click of a switch, and enjoyed that regal prerogative of liking and disliking, enthroning favorites one week only to dethrone them the next and place new composers and compositions under the patronage of my royal preference. Several of the hi-fi stores are still on my calling list. There I listen to the new equipment and, occasionally, run into the gentleman who has seventeen loudspeakers.

I still take part in the round-robin discussions of "concert hall presence", a quality of sound which is the goal

of too many of my new brethren in the fraternity of high fidelity.

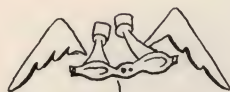
They strive and they buy every new piece of equipment, hoping somehow to make music from phonograph records sound exactly as it would sound in the concert hall. While most of these fellows know infinitely more than I do about the mechanics of high fidelity, I have discovered something that many of them will never realize.

Concert hall presence is not a matter of seventeen speakers, nor a fortune in amplifiers and intricate tone controls, but a simple matter of two dollars and seventy-five cents.

When I want music that sounds *exactly* like Dimitri Mitropoulos and the Philharmonic Symphony Orchestra playing in Carnegie Hall, I know the only way on earth to have it. I go to Carnegie Hall.

Several times I have been asked the pointed question why it wouldn't be simpler to buy a fine phonograph, all in one piece in an attractive cabinet. That is a sensible question if I ever heard one, and there is one simple answer. There have been only a couple of ready-made fine phonographs able to reproduce recorded music with tonal quality comparable to that of a good high fidelity "rig", so-called, and these were not for the economic likes of me.\* Lesser commercial brands simply can't compete. For two decades we have been listening to AM radio, which is drastically limited in its range of musical tones, and we have been hearing it most of the time through equipment that is equally limited. We have grown accustomed not to the true, clear characteristics of individual instruments in an orchestra, but to a restricted amalgam of sound. Very thrilling sound now is being engineered into long playing phonograph records. None but reproducing equipment equally well engineered can bring out the life-like quality of the music in the micro-grooves. Only the new magnetic tone cartridges, superb amplifiers and good loudspeakers in proper baffles will do this.

Being now in the inner circle of audio cognoscenti, I am surprised at how many people are still outside it, but also at how many are inside with me, in view of the amount of initiative it takes to get in. Except in a couple of high (or at least upper-middle) brow magazines, I had never seen any high fidelity equipment advertised until last year, when a few tiny blurbs managed to get into Carnegie Hall programs. Despite this, I find, the phenomenon is growing like crab grass. I suddenly see announcements of books on the subject; I receive invitations to join hi-fi clubs; I note that one record company is marking its disk-jackets: "Frequency range of this recording 25 to 20,000 cycles per second". It isn't certain that many people can hear tones quite that high or so low but, as they say in the hi-fi clubs, "It escapes me, but my dog enjoys it".



\* In essence, these are hi-fi rigs themselves, but cabined in opulence I don't require and, alas, couldn't afford.



Actually, this is not as silly as it may sound, since the ability of equipment to reproduce such extremes is based on much the same principle of engineering as the excessive and almost never used power and speed of modern motor cars. A car built to make 115 miles an hour is a much more satisfactory vehicle at a sensible 60 miles an hour than would be a car which had a top limit of 60.

Everyone selling high fidelity equipment seems to be enjoying a bonanza, the sound studios of retail stores are busy places and I have done missionary work which brought a half dozen friends into the fold. There is one prospect, at this moment unsuspecting, whom I am making elaborate plans to bring in.

**I** NOW READ all the music and record reviews, and a few days ago I came upon this following effusion in the columns of the newspaper where I work. It was written by a music critic who has spent eighteen years on the job, known every artist of importance in that time, has been program annotator for the New York Philharmonic-Symphony Society, and has written books on music which are looked upon as standard works on operatic and symphonic subjects.

Here are two paragraphs from his column, not record reviews for he does not review records, but his reaction to a recording:

"Listening to Columbia's long playing record of Claudio Muzio last Saturday, I had the weird feeling that the report of her death in 1936 was a case of mistaken identity. The illusion of life was complete. The voice — one of the most beautiful of all time — was warm with living reality. Almost every Muzio recording gives me that feeling. There isn't a note that doesn't throb with the haunting mystery of life.

"I heard her do 'Ah, non creddea', from Bellini's *Son-nambula* on Saturday, and it was a dream fashioned of wistful melody and longing. I heard her Mimi — aglow with first love and awakened youth and, almost like a page from life, came the third act of *La Traviata*. I shiver every time I hear it, and that to me is as good a test of great art as any."

This without question was the most intensely felt and flattering review I ever heard conferred on a phonograph record, and since the original masters were made before 1936 — long before the engineering skills which go into recordings today — I assumed that the critic must have a high fidelity system, the like of which few human ears have ever heard and which must have cost far into the second thousand dollars.

I read the review twice, then walked across the editorial room to the critic friend's desk.

"What did you play the Muzio record on?" I asked, helping myself to the cache of chocolate candy he always keeps in a side drawer. He didn't answer immediately and I glanced at his face.

"What do you think I played it on?" he asked, "I played it on a phonograph." I remembered my own reaction to the same question three months ago. My

friend couldn't tell me the name of his phonograph, wasn't even sure it had a name, but he paid \$16.75 for it. He was sure of that.

I bought the Muzio record, played it on my system and enjoyed it, then pasted the review on the cardboard sleeve of the record. From the review I had been reminded of something rather important to the enjoyment of phonograph records, similar to the mighty striving for "concert hall presence", that we should listen *to* music, not *at* it. My critic friend had listened to Muzio with not only his ears, but with his memories and imagination, and had been rewarded with great pleasure. Not too many of us have that background, but there is certainly no reason for the other extreme, the practice of some of my hi-fi friends, to buy fine equipment and the best of modern recordings — then sit back with trembling ears and *defy* the combination to please them.

Somewhere between my pal with the seventeen speakers and the friend with the \$16.75 phonograph there is a happy medium and I'm reasonably certain I know what it is. I'm now urging the *critic* to buy it.

However, my sales campaign is going to differ from that of the average crusading audiomaniac. I have a suspicion that my friend doesn't care a toot about sound reproduction, as such, so I'm going to preach music instead. And I mean to go slow. I recall my own first stunned reaction to a real jolt of high fidelity. It was too much of a good thing. I should have been more gently introduced.

**I**N FACT, I had a slight argument recently with one of the city's biggest sellers of audio equipment over a term which I thought he was using too loosely. Several times he referred to what the "average man" knows about high fidelity, and I told him that the "average man" in our country of 157 million people knows as little about the existence of fine music reproducing systems for the home as he knows about the Kremlin archives, or the mating habits of the auk. The "average man" has not yet heard about it! We who read every word written on the subject, who scan every new brochure and spec sheet and await with impatience the release of each new control panel, forget too soon that we are but the slightest fraction of a public which has yet to discover that this exciting new pleasure exists.

I am not a recluse in any sense of the word, and I feel that my neighbors and friends are of average awareness and intelligence, yet in the three months I have had hi-fi apparatus, only one person, among probably a hundred, has walked into the living room and recognized the amplifier, tuner and speaker as anything but a queer and oddly deployed phonograph. And the turntable had to be turning before most could deduce that. I'm happy to say that nearly all of them were impressed by the sound, and that several of them have bought systems of their own, but only one of them knew what it was, and that is because he works in a brokerage office where there is an LT (long talking) hi-fi fan. By which I imply simply that we, we happy few, have still a selling job to do.





KIERULFF — LOS ANGELES

During the past five years, the advent of high fidelity music reproduction in the home has "opened the ears" of hundreds of thousands of people to the pleasure and joy of an endless supply of good music in their homes,

## Good design means good listening



CUSTOMCRAFT — WASHINGTON

to be heard with a life-likeness never before known.

High fidelity means the reproduction of sound with a high degree of faithfulness to the original. Before World War II, there was music on records and on the radio. But what could be heard from then available radio-phonograph combina-







KIERULFF — LOS ANGELES



VOICE & VISION — CHICAGO



CUSTOM TELEVISION — NEW YORK

tions was limited; it was as if our ears had been stuffed tight with cotton. After the end of the war, the advent of long-playing records and of FM radio broadcasting provided a wide-range source of music. Both media could produce sound, with almost all the brilliance of the original, from

LOWE — BOSTON



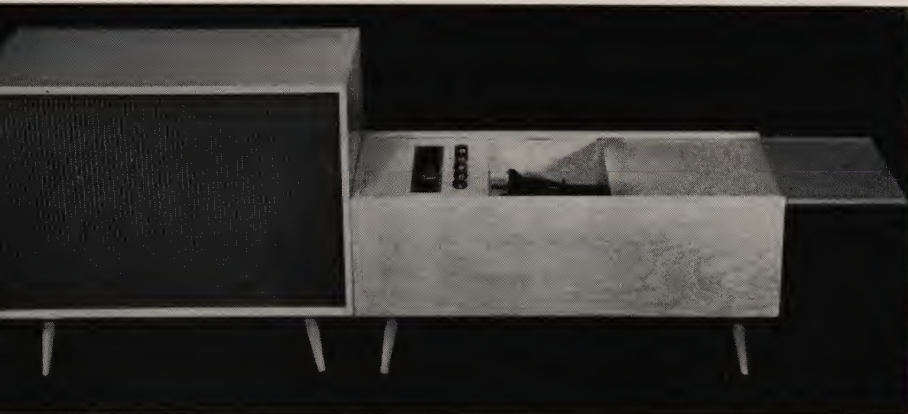
AUDIO ARTS — CHICAGO







VOICE & VISION — CHICAGO



ELECTRONIC WORKSHOP — NEW YORK



KIERLFF — LOS ANGELES

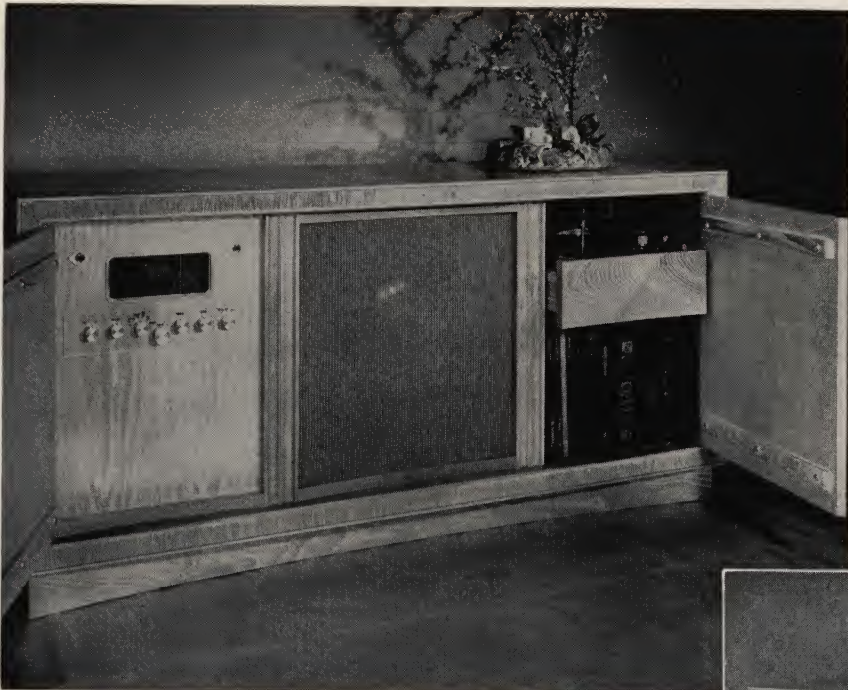


VOICE & VISION — CHICAGO

reproduced music. Such a demonstration was staged in the Fall of 1952 in New York; thousands of critical listeners found it difficult to tell whether the cello was live or recorded.

Aside from bringing a new type of sound into the home, high fidelity has also brought a new look. The radio-phonograph is no longer a bulky piece of furniture shoved against the wall. Rather, it is part of the decorative scheme. It may





WEINGARTEN — LOS ANGELES



KIERULFF — LOS ANGELES

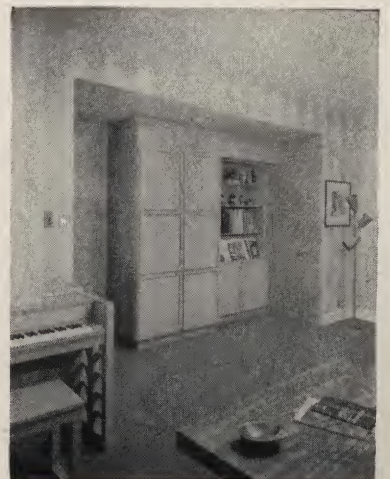
be a small chairside cabinet. It may be built into a wall . . . into bookcases or storage shelves at one end of the room. The variations are legion; the keynote is always: good to listen to, and good to look at.



AUDIO ARTS — CHICAGO



VOICE & VISION — CHICAGO







In today's music installation, television must not be overlooked. It, too can blend with the furnishings of the room: witness the suggestions on these two pages as well as elsewhere in this booklet. Doors cover the TV screen when the set is not in use.

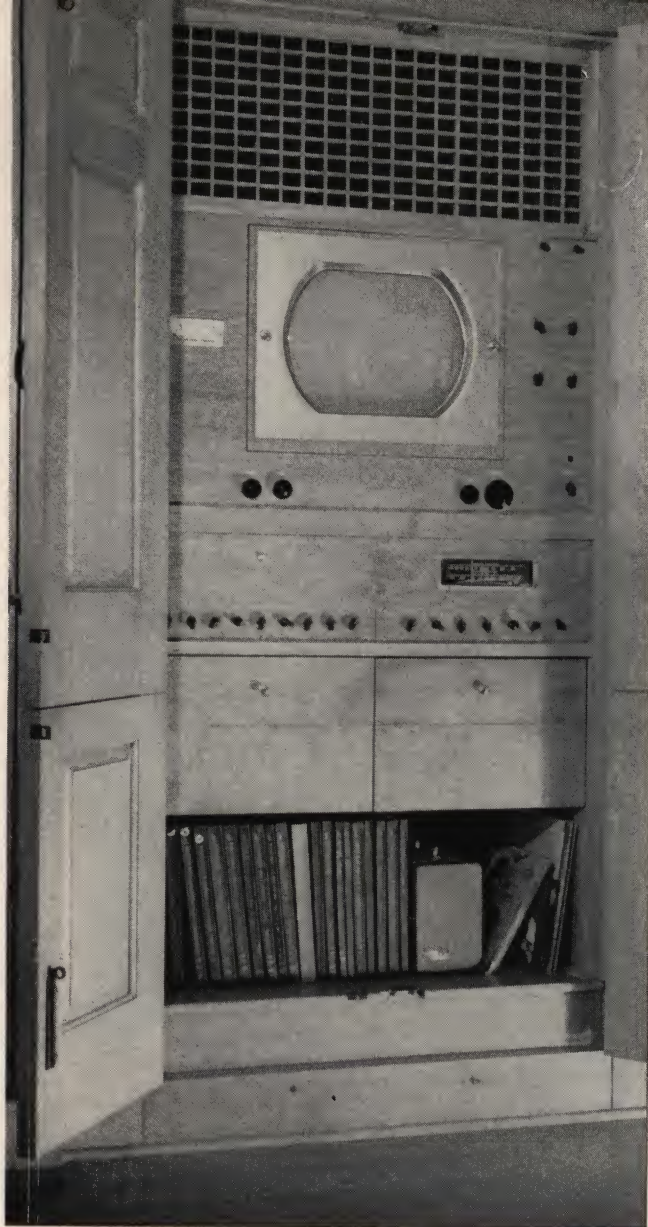
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Below: even though furniture arrangement dictates an awkward position for the TV set, it can be hinged to swing out for easy viewing.







KELSEY — NEW HAVEN



CUSTOM TELEVISION — NEW YORK

When there is a television set included in the installation, the loudspeaker for it should be located as near the TV screen as possible, so that sound and picture will seem to come from the same source . . . as in the two arrangements above.

WEINGARTEN — LOS ANGELES







VOICE & VISION — CHICAGO



It's a long jump from the double installation above, with radio-phonograph on the left, television on the right, to the very old "custom installation" shown at the left and below. In those days, any sound — good or bad — was a remarkable achievement.

MARGOLIS — HARTFORD







CUSTOM TELEVISION — NEW YORK

VOICE & VISION — CHICAGO



WEINGARTEN — LOS ANGELES







Below is a "built out" unit, for those who do not want to make structural changes

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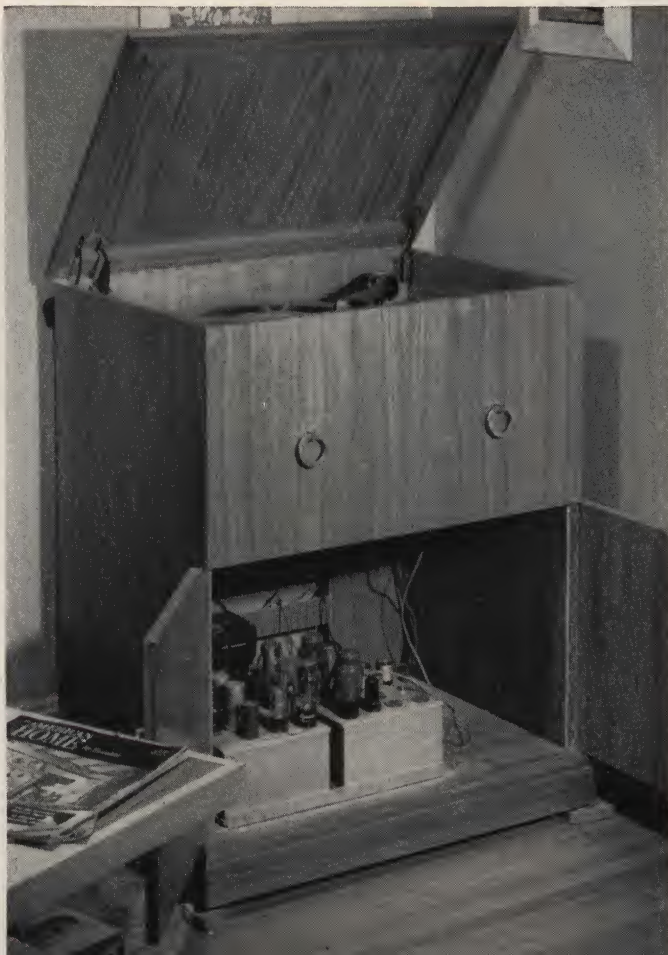
in their homes. Double-duty television is shown above: at the upper left, the living room side of the storage wall, with television, radio and phonograph facing into the room. The other side of the storage wall faces the dining alcove, and so does the television set.





A miniature storage wall for radio-phono equipment: either part of the house or a separate cabinet blending with the interior finish. Below, a speaker cabinet, and the "guts" of a phonograph.

ALL INSTALLATIONS THIS PAGE: KIERULFF — LOS ANGELES







WEINGARTEN — LOS ANGELES



KIERULFF — LOS ANGELES

In the music system shown at the upper left on this page, the speaker is near the ceiling, aimed downward: sound diffuses throughout the room.

When television is not a consideration, then the cardinal rule in placing a loudspeaker is to have it face the primary listening area. The farther away it is, the better.

KIERULFF — LOS ANGELES

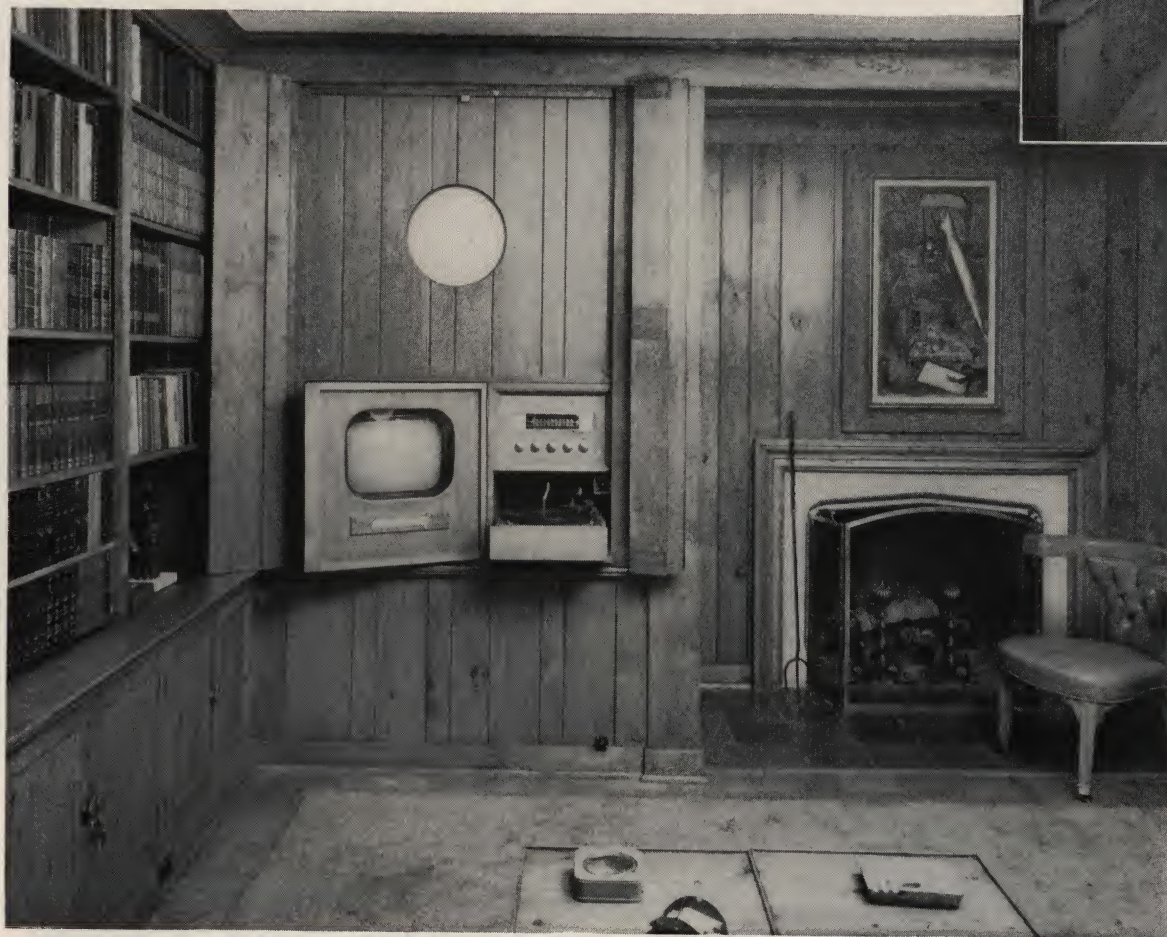


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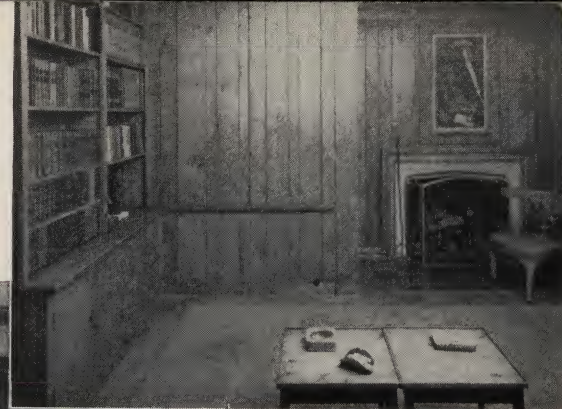




Below, an awkward location for the TV receiver, so it's hinged.



VOICE & VISION — CHICAGO



LOWE — BOSTON

Below, by revolving completely,  
one set serves two rooms.

VOICE & VISION — CHICAGO







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Whether the equipment is simple or complicated, whether the cabinet is starkly functional or a beautiful part of the architecture itself, good design is essential. And design, in high fidelity sound reproduction, encompasses two facets: design from the interior decorator's point of view, and design from

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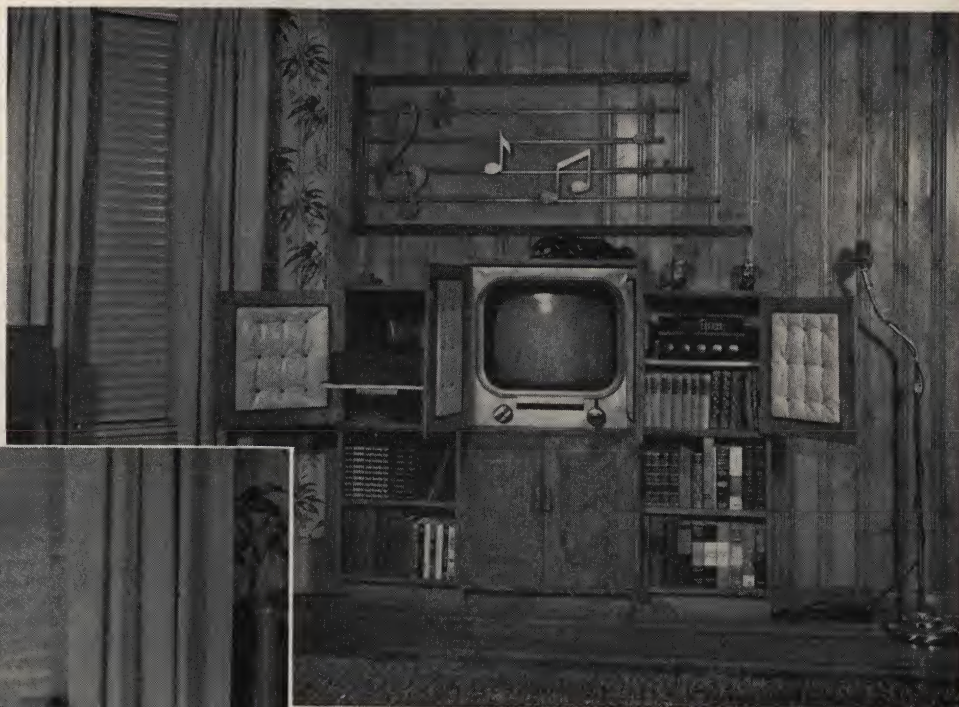


MARGOLIS — HARTFORD



CUSTOM TELEVISION — NEW YORK

the acoustic engineering standpoint. As far as the latter is concerned, where and how the loudspeaker is enclosed is paramount. Select a good speaker, seek the manufacturer's advice on optimum enclosure specifications, and more than half the battle is won.





# How to Plan for LIVING MUSIC in Your Own Home

*There is in souls a sympathy with sounds,  
And as the mind is pitched the ear is pleased  
With melting airs or martial, brisk or grave.  
Some chord in unison with what we hear  
Is touched within us, and the heart replies.*

By MILTON B. SLEEPER

THE kind of music that is worth having in our homes does not come from little boxes we can buy at the nearest electrical shop or hardware store, carry home along with our purchases of meat and groceries, and put in operation merely by plugging the cord into a convenient light socket.

We've been told that it's that simple, but it is not. We have been promised music of studio quality from portable phonographs, and cathedral tones from inexpensive radios. The promises are false. These devices cannot meet such claims, just as \$8,500 houses, fully equipped with leaking roofs and defective plumbing, fail to sustain the agents' assurance that they will make us feel like kings in our own castles. Just as a home must provide more than shelter, so equipment for music reproduction must do more than emit sound.

Many people have learned to their sorrow that a house worth buying must, first of all, be planned to suit the intellectual and artistic demands, as well as the daily living habits, of the particular family that is to occupy it. Moreover, the house must meet certain specifications as to the quality of materials and methods of construction. Otherwise, it will give the occupants neither joy nor even satisfaction, and the money spent to buy it will only represent a poor investment.

The problems of planning a music installation closely parallel those of planning a house. In each case, the factors of arrangement, quality, facilities, and price require the most careful consideration, so that the owner's needs and tastes will be served to best advantage within whatever limitation is set up on the cost. There is one difference:

When you decide to buy a house, your first step will probably be to engage an architect. In his professional capacity, he will first discuss with you, at great length, your way of living. He must know just what you will expect your house to do for you, and how you will make use of it. And he will ask how much you can afford to spend. In all probability, what you want will cost more than you intend to pay. But architects are trained in the task of helping their clients decide what features are essential and which are not, to make compromises that put first things first, and then to add as many luxuries as can be included within the budget limitations.

On the other hand, the architect may suggest features that had not occurred to you, which will add to the comfort and attractiveness of your new home. It is a part of his job to know all the latest conveniences and the most advanced construction techniques, and to suggest their use to those who might appreciate them, even though they raise the total construction cost above the limit set initially.

Such professional advice and counsel is not, unfortunately, very widely available — as yet — to people who want to install high-fidelity music systems in their homes. In most cases, it is necessary to choose between two courses of action. You can send for mail order catalogues, and study the information presented on different types and combinations of equipment, or you can go to a dealer's store and listen to various systems. Either way, you run the danger of becoming confused by the endless combinations of equipment available to you, and you may find, after you have had your installation for a few months, that you have bought what someone else thought you should have, rather than a system carefully tailored to your requirements and your budget.

It is the purpose of this article to present a new approach to the problems of planning a home music installation, not as a substitute for purchasing equipment



by mail or at a dealer's store, but rather as a means of making certain that, wherever the equipment is bought, it will give you the most entertainment per dollar of its cost.

This outline for planning a home music installation actually parallels the study an architect would make of

your requirements for a house. Thus, just as the architect has a general idea of what you want before he even starts to make drawings, so you can decide on the basic elements you want to combine in your music system before you look at a catalogue or visit a dealer who sells high-fidelity equipment.

## PLAN FOR A HI-FI SYSTEM

In this PLAN FOR A HI-FI SYSTEM,<sup>1</sup> all the different elements that are ordinarily combined in a music system have been listed. Each is discussed in detail, so that you can decide for or against its inclusion in your system. Having made up your mind about each item, you can then pick out the various pieces of equipment from a catalogue, if you are going to order by mail, and tally the cost. If there is a balance to spare in your budget figure, you can then add one or two items, or substitute more expensive models. Or if you exceed your budget (which, alas, is more likely), you can revise your plan or increase your appropriation accordingly.

<sup>1</sup>This PLAN FOR A HI-FI SYSTEM is copyrighted, and must not be reproduced in whole or in part without permission.

On the other hand, if you intend to buy your equipment from a local dealer, take your plan to him. It will help him to advise you, by giving him an overall picture of the equipment you want in your system. You will then be saved the experience of listening to one combination of instruments after another, and being asked over and over again, "How do you like the way this sounds?" until finally you are so mixed up that you say: "I can't tell which I like best. What do *you* suggest?" Whereupon the dealer, who certainly doesn't know what you like if you don't yourself, will undertake to advise you anyway. And if you follow his advice blindly, the result will depend largely upon the experience of the salesman who waits on you.

## THE COST OF A HI-FI SYSTEM

Your first step is to decide how much you want to spend. It's reasonably certain that you will spend more than you plan at first. Consequently, at the end of this section, provision is made for putting down an initial figure, a first revision, and a final estimate. This will be for equipment and installation. Provisions for phonograph records and pre-recorded tapes have not been included, since you will not buy more than a few records or tapes at the start.

You can spend as much or as little as you please for your equipment and its installation. Perhaps you have a friend who has a hi-fi system, and you want something similar to his. That may indicate the amount you want to spend. You may have a specific sum available for your installation. Or, if you have exact ideas as to what must be included, you might as well set up your plan, and then find out what it will cost.

One word of warning at this point: Don't plan on buying hi-fi equipment at a discount. You probably won't have much luck anyway, because the trade prices don't allow the dealers enough profit to give away very much

of it. If you find a way to get a substantial reduction on some item, the chances are that it is an obsolete model that is being closed out because it has been superseded by something much better.

The only safe procedure is to buy from a dealer or mail order house of top reputation. Sometimes even the best equipment develops a fault of one kind or another. If that happens, you want the protection of the manufacturer's guarantee, and not the answer: "Sorry, we can't allow you a discount and give you service besides!"

The purpose of starting with an estimate of cost is to help you plan a system that will give you the most satisfaction from the money you spend. Or, to put it the other way, to give you what you want at the lowest price. So the first step is to put down, in the space below, your initial figure. Subsequently, you will arrive at the first estimate, and eventually you will be able to put down a figure for the final estimate.

INITIAL FIGURE \$ \_\_\_\_\_ FIRST ESTIMATE \$ \_\_\_\_\_  
FINAL ESTIMATE \$ \_\_\_\_\_

## THE BASIC HI-FI FACILITIES

Exactly what do you want your hi-fidelity system to do for you? That is something no mail-order house nor dealer can tell you, since you are the only one who knows. Therefore, you must decide which of the basic facilities — FM radio, records and tape — you want to include in your installation.

This point is stressed because so many people allow

themselves to be persuaded into buying complete FM, record, and tape equipment only to find, after they have had it in use a few months, that they were actually interested in just one or two of these sources of music. Then they wish that they had put all their investment into what they wanted most. If you are in doubt on this point, take time to acquaint yourself with the various pieces of



equipment, so that you will understand what each one can do, and how much entertainment it will contribute to you.

On the other hand, if you plan for only one source at the beginning, it is wise to provide for adding the others at some future time.

While television is not primarily a source of musical entertainment, it is included here for consideration. An

increasing number of people feel that TV is properly part of a custom installation, and they want to use the hi-fi system for reproducing the sound channel.

In sections 1 to 5, FM, record, tape, and TV equipment are taken up separately and their uses discussed so that you can decide which you want. Also, you may want to rate them in order of their importance in allocating the amount you will spend for each one.

## 1. FM BROADCAST RECEPTION

There are about 700 FM broadcast stations on the air now. Service varies considerably in different parts of the United States. If you live within 75 or 100 miles of a large city, you can probably get all the network programs on FM, and some that aren't on AM at all. Many areas outside the primary coverage of AM stations have a wide choice of FM programs. More and more, FM stations are specializing in fine recorded and live-talent music.

You may be under the impression that you do not have FM service where you live because you or one of your neighbors once bought a set with FM tuning, only to find that the reception was not good. That may have been because the set was not sensitive, or because it did not have a proper antenna.

The more sensitive the FM tuner, the more effectively it will cut out static and interfering noises. Also, FM is like TV in that it requires some kind of an antenna, and the weaker the signals at a given location, the higher and more efficient the antenna must be. You may even find it advisable to have a control to rotate the antenna, so as to point it in the direction of the station you want to receive.

While you may get FM reception with only a line-cord connection, the performance will be improved even if only a simple dipole made of wires is run along the picture molding, or stretched between rafters in the attic.

FM is the high-fidelity method of audio broadcasting. On FM, recorded and network programs are heard against a background of utter silence. Live talent programs, originating at the local transmitter can have full 15,000-cycle quality, and provide the presence effect which seems to bring the artists right into your living room. Once you get into the habit of listening to FM, you won't be able to tolerate the background noise and interference on AM.

Thus, if you are interested in radio programs you should 1) check carefully on the FM stations within 75 to 100 miles of your home, 2) choose a high-sensitivity tuner, and 3) find out what type of antenna will be necessary to pick up adequate signal strength. If you are going to have television also, you may be able to use the same antenna for both FM and TV, or at least you can mount two separate antennas on the same mast.

FM TUNER \$ \_\_\_\_\_ ANTENNA \$ \_\_\_\_\_

## 2. MUSIC FROM PHONOGRAPH RECORDS

The principal advantage of phonograph records is that you can have the particular music you want whenever you want it. In addition, there is life-long enjoyment to be derived from building a collection. Aside from the entertainment and relaxation records afford, they are useful as a means of encouraging children to appreciate good music. Recently, a considerable list of children's records has become available, ranging from dramatized nursery rhymes and folk songs to those which call for the child's participation in acting or dancing. Records are also the most convenient source of dance music for young folks or grownups. And now, with better records and more perfect reproduction available, group listening has developed as a popular social activity among high school and college students, as well as among adults.

The elements of a hi-fi system specifically related to records are the turntable or record-changer, tone arm, pickup, and stylus.

A turntable plays only one record at a time. Practically all turntables are adjustable as to speed for 33, 45, and 78 rpm. If you are going to use long-playing records only, at 33 rpm., you may want a turntable rather than a

changer, because it is hardly necessary to have a changer when each record side lasts 20 minutes or so. Furthermore, if you plan to have a very fine system, you may be sure that its bass response will show up the slightest mechanical rumble. Hence, it is advisable to get a turntable.

The convenience of a record-changer becomes most important when 45's or 78's are to be played, though many a music lover revels in being able to stack four hours of LP's on a changer and just letting it run. A feature on many changers is a switch to cut off the changer after the last record. The older designs repeat the last record until the motor is switched off manually. That is disastrous if you turn down the volume to answer the telephone, for example, and then forget the changer is running. Finally, the better your system and the more critical you are of reproduction quality, the more important it is to choose your changer for true tracking and freedom from rumble, rather than for the number of tricks it will perform.

The best way to decide between a turntable and a changer is to have both. An increasing number of installations



are being equipped in that way, and it is an excellent plan.

A tone arm is necessary to carry the pickup if you have a turntable. You can buy a separate arm, or one that comes already fitted with a pickup. There are tone arms with pressure adjustments. Others have a viscous damping arrangement, so that when you drop the arm on the record it settles down so gently that neither the stylus nor the record is injured.

Pickups vary widely in performance and price. Least expensive are the crystal types. Magnetic or reluctance pickups are very widely used for high-fidelity reproduction. The FM capacitance type employs the lightest pressure and causes the least record wear. You have your choice between separate plug-in pickups for micro-groove and 78-rpm records, or turnover types that can be adjusted for both speeds.

The best advice is to choose a pickup consistent in performance and price with the overall quality of your system. If you are going to use it principally for popular 78 records, a crystal pickup will probably be quite

adequate. But if you are hoping for superlative reproduction from the best recordings, you must select your pickup accordingly. The foregoing applies to the choice of a pickup for use with either a turntable or changer.

As for the stylus, you have a choice between a semi-permanent metal or sapphire type, and a diamond point. The former must be replaced at rather short intervals. A diamond will last much longer. Again, your decision should be dictated by the kind of records you are going to play. With a diamond, you don't have to worry that your best records will be injured by a worn needle. On the other hand, if you are going to play popular 78's, you will probably discard them before they will suffer from a metal or sapphire needle that wasn't changed soon enough.

**TURNTABLE \$\_\_\_\_\_RECORD CHANGER \$\_\_\_\_\_**

**TONE ARM \$\_\_\_\_\_**

**PICKUP, SEMI-PERMANENT STYLUS \$\_\_\_\_\_**

**PICKUP, DIAMOND STYLUS \$\_\_\_\_\_**

### 3. A SECOND PHONOGRAPH

The enjoyment of fine phonograph music should certainly be shared with the younger members of the family in a home where there is a high-fidelity installation. However, good equipment calls for a very careful handling. It takes only one scratch to ruin a long-playing record, and expensive pickups are not designed to withstand rough treatment.

Accordingly, you may want to include in your list of items a portable phonograph which the young people

can use for their own 78's and 45's. They can carry it around, and use it as they please. It's the best way to eliminate what might be called unauthorized use of the hi-fi installation, and those embarrassing situations that arise when scratches appear on pet long-playing records, or the pickup, for some unaccountable reason, doesn't produce music any more!

**SECOND PHONOGRAPH \$\_\_\_\_\_**

### 4. TAPE RECORDER AND PLAYBACK

Of all audio equipment, tape machines vary most widely in design, performance, and price. You can get a little battery operated unit, light enough to carry on a strap over your shoulder, that gives moderately good reproduction, or a professional model that is flat above 15,000 cycles and is portable to the extent that it has handles so that two men can carry it a short distance. There are excellent models intended for permanent installation priced from \$100 to \$3,500. A few are playback machines only, but most perform the dual functions of recording and playing back.

From the foregoing, it is clear that you must know just what you want to do with a tape machine before you buy it. Both audio quality and price depend to a considerable extent upon the tape speed. Most machines have two-speed drives. A machine operating at 1½ and 3¾ inches per second will record speech at moderately good quality, but music is only fair. At 3¾ and 7½ ips., speech is excellent, and music is equal in quality to the reproduction capabilities of moderately-priced audio systems. If you want the very best recordings — and they can be practically equivalent to the original speech, music, or sound effects — then you will require a machine that

operates at a tape speed of 15 ips. With such a machine you will need a microphone of top quality, and a real high-fidelity system to reproduce everything that is recorded on the tape.

This brings up again the importance of consistent quality in all associated components. For example, inexpensive microphones are supplied with machines operating at 1½ and 3¾ inches. Nothing would be gained by using a \$150 microphone with such a tape recorder, nor is there any advantage in playing the tapes on a three-way loudspeaker system.

Unless you are experienced in making tapes, or have an expert to instruct you, it might be well to start with a moderately-priced machine, and then trade it in on more expensive equipment later. Or you may prefer to buy a professional-type recorder right away, and to work with it until you have mastered its use, if you are seriously interested in making tapes.

Tape machines are used widely for building private libraries of church organ and choir music, radio programs, and such other sources of music as are available. Many collectors transcribe each new record on tape at once, making it unnecessary to subject the record to wear there-



after. Copies of particularly fine tapes are exchanged by collectors. There are innumerable other non-commercial uses for tape equipment. A special advantage of tape lies in the fact that an unsuccessful recording can be wiped off, and the tape used again and again without any loss of audio quality. Tape is so inexpensive that it

is not necessary to put down a figure for its cost. Watch out for tape sold at cut prices. It may have sections that were improperly coated.

TAPE MACHINE \$ \_\_\_\_\_  
EXTRA-QUALITY MICROPHONE \$ \_\_\_\_\_

## 5. TELEVISION RECEIVER

If you have a TV receiver already, or you are planning to buy a conventional model in a factory-built cabinet, it should not be considered in this plan for a hi-fi system. But if you want to make a custom-type TV set an integral part of your new installation, it should be included.

For this purpose, you can get a plain TV chassis without an audio amplifier or speaker. These parts are not necessary, since you can use the same high-quality amplifier and speaker arrangement you will install for FM, record, or tape music.

The TV chassis will not be much cheaper, if any, than a complete cabinet model with a picture tube of the same size, but the quality of the equipment and its performance should be much superior.

One point may be a controlling factor in your decision: The television tube must be so located with respect to your speaker, or speakers, that the sound will seem to come from the place where you see the picture. You can imagine the effect that would result from putting the TV chassis in the middle of a room, with the speaker at one end or the other!

Of course, at some added expense, you can have the TV chassis installed in any part of the house, with an adjacent speaker and volume control connected to your amplifier wherever it is located, and a remote switch so wired that it will turn the amplifier on and off with the TV set.

TELEVISION CHASSIS \$ \_\_\_\_\_

## 6. PRE-AMPLIFIER AND AMPLIFIER

The audio signals from an FM or TV tuner, phonograph pickup, or tape machine, are not sufficient to operate a loudspeaker. Hence the necessity for an amplifier. In fact, the electric currents, or signals, generated in a reluctance pickup are so minute that they must go through a preamplifier before they are fed to the main amplifier.

Also, you will probably want tone controls to regulate the treble and bass response, and a compensator to adjust the preamplifier according to the different recording characteristics used by U. S. and foreign record manufacturers.

Some FM tuners have the tone controls and preamplifier built in, but you may prefer to use a plain FM tuner, with a separate preamplifier unit containing the tone controls and compensator. As long as you intend to play records with magnetic or reluctant cartridges you will have to have a preamplifier. Most tape recorders have their own special amplifier circuits, so they do not

require additional preamplification. As to price, a good preamplifier with tone and compensator controls is rather expensive, costing more than some of the moderately-priced amplifiers. On the other hand, if you are only going to spend \$50 for an amplifier it is advisable to get one with tone controls. Then you can use a simple preamplifier costing about \$10.

There is a wide range of choice in amplifiers, as to price, special features, and performance. You have some guidance in the different price groups. That is, the different models can be grouped in low, medium, or high brackets. Obviously, no useful purpose would be served in buying a high-price amplifier if the other elements of the system were low or medium-price types. But all the advantages of expensive equipment would be sacrificed if they are used with a cheap amplifier.

PREAMPLIFIER \$ \_\_\_\_\_ AMPLIFIER \$ \_\_\_\_\_

## 7. LOUDSPEAKER SYSTEM

The loudspeaker is the last item in the series of instruments by which electrical impulses produce audible sounds. Depending on the capabilities of the preceding equipment and the size of the room where the speakers will be installed, you have the choice of using 1) a single speaker, 2) a bass speaker or woofer, and a second speaker to carry the middle and top audio frequencies, or 3) a woofer, intermediate speaker, and a tweeter for the top range. While this is not a firm rule, in general the three types of speaker systems are related to associated equip-

ment in the three price brackets which have been discussed.

When two or three speakers are used, networks are required to feed each speaker with its corresponding band of frequencies.

Speakers can be bought in separate cabinets, or two or three speakers can be mounted in one cabinet. They can be set into walls, furniture pieces, or in the cabinet designed to hold all the associated equipment. Remember that the type of enclosure has a direct effect on speaker performance. The most convenient or attractive arrange-



ment may not be the best acoustically. You may need expert advice on this detail.

Additional speakers with individual volume controls can be installed in various rooms, together with switches to turn the equipment on and off. Thus you can load up your record-changer, or tune in the radio before you go to bed, switch on either one when you are ready, adjust the volume of your bedroom speaker, and switch off the entire radio-phonograph system before you go to sleep.

## 8. INSTALLATION OF EQUIPMENT

This item was set up on the assumption that you will want to have some kind of special mounting for your equipment, which will involve a certain amount of labor. It may be only a simple arrangement in a bookcase. Perhaps you have ideas about a complete music wall, or the reconstruction of a cabinet or closet. All that expense can be saved if you do the work yourself, but you may find it more satisfactory to employ a custom installation expert, or a serviceman who has a thorough knowledge of audio equipment.

Whatever kind of an installation you plan, don't skimp on cost at this point. If the performance of some simple part is not satisfactory, you can replace it. But if the wires are run carelessly, they will be broken in the course of housecleaning. What is worse, they may develop mysterious, intermittent open or short circuits that are diffi-

Also, you can have a connection for a permanent or plug-in speaker outdoors on the lawn or hidden in the trees, on a terrace, or inside a patio. This calls for running wires in conduit, with a waterproof mounting for the connector, switch and volume control.

SPEAKER OR SPEAKERS \$ \_\_\_\_\_ CABINETS OR  
MOUNTING \$ \_\_\_\_\_ REMOTE SPEAKERS \$ \_\_\_\_\_  
REMOTE CONTROLS & INSTALLATION \$ \_\_\_\_\_

cult to find. Generous ventilation must be provided for the amplifier and tuner, as a protection against overheating. Cabinet work must be well done, and of solid construction. This applies particularly to record-changer and speaker mountings. Pickup pressure is so light that any jar transmitted to the changer may cause the pickup to jump a few grooves. Loud notes from the speaker will cause anything loose in the room to rattle, including joints in the speaker cabinet.

Your hi-fi system should be a source of pleasure and satisfaction to see as well as hear. Otherwise it will be only an irritation and disappointment, and a waste of money.

CABINET WORK \$ \_\_\_\_\_  
INSTALLATION OF THE SYSTEM \$ \_\_\_\_\_

## FINAL SELECTION OF EQUIPMENT

After you have read the foregoing discussion of the possible variations that can be incorporated in your hi-fi system, you may have the feeling that the project is just too complicated for a layman to tackle. It would be the same if, at the first session with your architect, he presented all the factors that you would ultimately decide upon in planning a house. You would throw up your hands and say: "This is beyond me! I'm going to look at houses that are already built, and take my chances on finding one that will prove satisfactory after I move in."

Well, that's one way to decide on a hi-fi system, too. Several companies are offering very handsome cabinets of functional design, so simple in line and appearance that they do not argue with furnishings of any period. And they offer a choice of facilities and fine equipment all installed and ready to operate. You can set up such a unit in your living room, connect the AC current and the antenna, and have everything working in a matter of fifteen minutes. That is a solution worth considering.

On the other hand, the problems of planning a custom

### RECAPITULATION

1. Fm tuner	\$ _____	
Antenna	_____	\$ _____
2. Turntable	\$ _____	
Changer	_____	
Tone Arm	_____	
Pickup	_____	\$ _____
3. 2nd Phonograph	\$ _____	\$ _____
4. Tape Machine	\$ _____	
Microphone	_____	\$ _____

5. Television Chassis	\$ _____	\$ _____
6. Preamplifier	\$ _____	
Amplifier	_____	\$ _____
7. Loudspeaker	\$ _____	
Cabinet or	_____	
Mounting	_____	
Remote Speaker	_____	
Remote Controls	_____	\$ _____
8. Cabinet Work	\$ _____	
Installation	_____	\$ _____
<b>TOTAL COST</b>	<b>\$ _____</b>	<b>\$ _____</b>



installation for your home shouldn't discourage you. As you study the various elements and begin to understand what they will mean to you, you will be able to think of them in their order of relative importance in function and cost. Then you will be ready to compare the pieces of equipment as described in catalogues, or to go to a dealer and say: "I have a tentative plan for a hi-fi installation and I'd like to hear a combination of instruments that will come to about the figure I have set as a budget." If you have a capable man to assist you in making your final selections, the last of your uncertain-

ties will be cleared up quickly.

*In the end, when your installation is complete, the last adjustments made, and you finally have at your command the music of your own choosing, with all the tonal magnificence a fine audio system can provide, you will look back on the work and worry of planning your installation as one of your most rewarding experiences. Even if the cost was twice what you intended to spend, you will be comforted by the conviction that no other investment would pay such liberal and lasting dividends of enjoyment and satisfaction.*

HIGH FIDELITY is the only magazine edited specifically to serve those who enjoy good music in their homes. It is planned both for those whose primary interest is in music itself, and for those to whom high-fidelity reproduction of the music is of paramount importance.

With Charles Fowler as editor, and John Conly as associate editor, HIGH FIDELITY has really become a bible for these groups.

The Records and Music Section provides analytical reviews of all current long-playing releases, written by such eminent authorities as Paul Affelder, C. G. Burke, Ray Ericson, Alfred Frankenstein, James Hinton, Jr., J. F. Indcox, Edward Merritt, Jr., and David Randolph — more reviews than any other magazine.

In addition, recorded works of a leading composer are compared and judged in each issue. Already issued are discographies of Handel, Haydn, Schubert, Verdi and Beethoven.

For hi-fi enthusiasts this magazine is principal source of information on new equipment and its proper use, methods of improving reproduction from FM, records, and tape, and ideas for simple as well as elaborate custom installations. All articles are written in non-technical language, handsomely illustrated, and printed on fine paper. Because it covers recorded music and equipment so completely, HIGH FIDELITY is also of great value to music teachers, educators, architects, and decorators.

HIGH FIDELITY Magazine (128 pages, 8¾ by 11⅝ ins.) is published every other month. Single copies are \$1 each, postpaid. Annual subscription rate (six issues) is \$5 in the United States, its Possessions and Canada; elsewhere, it is \$6.



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